Behavioral Risk Factor Surveillance System

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The data in this report come from the Behavioral Risk Factor Surveillance System (BRFSS) and the Pregnancy Risk Assessment Monitoring System (PRAMS). The PRAMS survey is designed to collect data on live births from a representative sample of women in New York State. PRAMS was developed to assess the impact of maternal behaviors, both before and during pregnancy, on the outcomes of the pregnancy and the health of the newborn infant. Funding for the PRAMS program is provided in part by the Centers for Disease Control and Prevention, Atlanta, GA (Grant Number U50/CCU20709507).

The BRFSS is a continuous telephone survey system supported in part by the Centers for Disease Control and Prevention and administered by the New York State Department of Health. The system is designed to provide information on behaviors and risk factors for chronic disease, preventive infectious disease and other health conditions among the adult population. The data for this report have been weighted to reflect the adult population of the state. Analysis of the BRFSS data was conducted by the Fetal Alcohol Syndrome Prevention Section of the Division of Birth Defects and Developmental Disabilities in the National Center for Environmental Health of the Centers for Disease Control and Prevention. Editorial support was provided through a cooperative agreement with the Council of State and Territorial Epidemiologists.

Copies may be obtained by contacting:

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Fetal Alcohol Syndrome

Overview

Fetal alcohol syndrome (FAS) refers to a group of physical and mental deficits that occur among some children born to mothers who drank heavily while pregnant. These deficits can include facial abnormalities, growth retardation and behavioral and cognitive problems (1-4). FAS has been estimated to occur in almost one in every 1,000 births nationwide, and is one of the most common known causes of preventable mental retardation (5).

The economic costs associated with FAS include neonatal care for low birthweight babies, surgery to correct birth defects, special education for children with learning and behavior disorders and supervised support and care for the mentally retarded. The costs associated with FAS are estimated to be from $250 million to over $1 billion per year (6).

The amount of damage produced by prenatal alcohol exposure may depend on several factors, including the stage of fetal development, biological and environmental variables, and the frequency, quantity and pattern of the mother's alcohol consumption. Early exposure increases the risk for serious physical defects, and later exposure increases the chances of growth deficiencies. The brain is particularly sensitive to alcohol, and neurological impairment can occur throughout pregnancy.

- The most critical time for abnormal facial features appears to be the first trimester.
- Alcohol consumption increases the risk of miscarriage during the first and second trimesters.
- In the third trimester, the fetus normally undergoes rapid and substantial growth. Alcohol consumption during this period can impair growth and brain development.

FAS is entirely preventable, however, the medical and public health communities struggle to eliminate this birth defect 25 years after it was first identified. There is no known safe amount of alcohol consumption during pregnancy; women who are pregnant or who are planning a pregnancy should abstain from alcohol. Studies have shown that most pregnant women will reduce or cease their alcohol intake if they are made aware of the harmful effects of alcohol on their babies. One of the most critical periods of fetal development is in the first trimester, when the mother may not know that she is pregnant.

Drinking Before and During Pregnancy

One of the goals of the Healthy People 2000 National Health Promotion and Disease Prevention Objectives is to increase the percent of women who abstain from alcohol during pregnancy to 95% by the year 2000. According to a recent report from the Centers for Disease Control and Prevention (CDC), frequent alcohol consumption among pregnant women nationwide increased fourfold between 1991 and 1995 (7). CDC researchers analyzed data from the Behavioral Risk Factor Surveillance System (BRFSS), a random telephone survey of the adult population in each state. When asked if they had a drink of any alcoholic beverage (beer, wine or liquor) during the past month, almost one in six pregnant women nationwide responded that they had, and more than 3 percent reported frequent drinking (seven or more drinks per week or five or more alcoholic beverages on at least one occasion). These rates show a substantial increase from the 1991 BRFSS in which one in eight pregnant women reported any drinking and less than 1 percent reported drinking frequently (8). Considerable progress remains to be made to reach the Healthy People 2000 goal.

The number of pregnant women surveyed in the New York State BRFSS is too few to report valid findings. However, information on alcohol use before and during pregnancy is available through New York State's Pregnancy Risk Assessment Monitoring System (PRAMS). PRAMS is a population-based survey of New York mothers (excluding New York City) who have recently given birth. Questions about alcohol use include the number of drinks women had in an average week three months before and the last three months of their pregnancy. According to combined PRAMS data from the years 1993 through 1995, 56 percent of women responding to the survey reported drinking in the three months prior to becoming pregnant and 8.5 percent drank during the last three months of their most recent pregnancy.

Table 1. Reported drinking among childbearing age women in New York State and the nation:

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	United States	New York
	(%)	(%)
Any Drinking (a)	50.9	55.9
Frequent Drinking (b)	12.7	13.4

(a) Consumed at least one alcoholic beverage during the past month

(b) Seven of more drinks per week or five or more drinks on one occasion.

Drinking among Childbearing Age Women

Among all women of childbearing age (18-44), drinking rates reported in the nationwide BRFSS were stable from 1991 to 1995, about half of the women drank any alcohol and one in eight drank frequently. In New York State in 1995, 56 percent of women of childbearing age consumed at least one alcoholic beverage during the past month, compared to 51 percent nationwide (Table 1). New York was ranked 18th, with Utah reporting the lowest prevalence (26%) and Wisconsin the highest (68%). Approximately 2.14 million women of childbearing age in New York drink alcohol.

In New York State in 1995, 13 percent of women of childbearing age reported that they drank frequently (seven or more drinks per week or five or more drinks on one occasion), essentially the same rate as reported nationwide (Table 1). New York ranked 18th among the states in reported frequent drinking. Wisconsin also reported the highest prevalence of frequent drinking among women of childbearing age (19%); Tennessee had the lowest prevalence (4%). Approximately 45,000 women of childbearing age in New York frequently drink alcohol.

Recommendations

Because there is no established "safe dose" of alcohol for pregnant women, The American Academy of Pediatrics (AAP) recommends abstinence from alcohol for women who are pregnant or who are planning a pregnancy (4). AAP further recommends that special efforts should be directed toward educating prior to and during their childbearing years, regarding the harmful effects of alcohol on the development of the fetus. Efforts at all levels of society will be needed to develop quality educational programs to be integrated into the curriculum in schools and adult centers of learning.

For More Information on FAS

The Department of health maintains a birth defects monitoring system known as the Congenital Malformations Registry. Special studies of FAS are underway under the auspices of this registry. For more information on surveillance of FAS, please contact Dr. Charlotte Druschel, Medical Director of the Congenital Malformations Registry at (518) 458-6249. The Department also has a low literacy brochure available "How to Have a Healthy Baby", available from New York State Department of Health Publications, P.O. Box 2000, Albany, NY 12237.

The Office of Alcohol and Substance Abuse Services also has staff knowledge about FAS. Please contact Wendy Gibson, Director of Communications, OASAS (518) 485-1768.

Because poorly educated women are among those at highest risk for delivering infants with FAS, a new low-literacy brochure has been released. "Drinking and Your Pregnancy" defines FAS and uses a question and answer format to provide simple advice for women. Up to 100 copies of the brochure are available by writing to the National Institute on Alcohol Abuse and Alcoholism, PO Box 34445, Washington DC 20043. Larger quantities may be obtained by providing a distribution plan. The brochure can also be downloaded and reproduced from the web site of the National Council on Alcoholism and Drug Dependence: http://www.ncadd.org/arbdwk.html.

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